



PATENT ABSTRACTS OF JAPAN

(11) Publication number: 08093774 A

(43) Date of publication of application: 09.04.96

(51) Int. Cl.

F16C 33/66

F16C 33/44

(21) Application number: 06225446

(71) Applicant: NTN CORP

(22) Date of filing: 21.09.94

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(54) SOLID LUBRICATING ROLLING BEARING

(57) Abstract:

PURPOSE: To stabilize lubricating performance in the initial stage of operation by forming lubricating coating films of PTFE on a surface causing rolling or sliding abrasion of inner and outer rings, a surface of rolling body and a surface causing sliding abrasion of a holder of a PTFE type high polymer material.

CONSTITUTION: A holder 4 is formed of a high molecular material using PTFE as a base material, and lubricating coating films 1a, 2a, 3a and 4a composed of crystalline PTFE are formed on an outside surface of inner and outer rings 1 and 2, a surface of a ball 3 and an outside surface of the cage 4. The coating films can be formed, for example, by spraying dispersing liquid of PTFE having average molecular weight not more than 5000 to a coating film forming surface or by soaking a bearing part or a finished product in the dispersing liquid of PTFE. A lubricating coating film 4a of PTFE of the cage 4 is shaven off by contact with a rolling body, and becomes lubricating powder, and this forms a rolling coating film on a raceway surface of the inner and outer rings, a surface of the rolling body or the like, and causes a lubricating action. Since contact between the holder and the rolling body or the like is sliding

contact, the rolling coating film is formed in a short time from an operation start, so that stable lubricating performance is obtained.

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